

REMARKS

The present amendment is submitted in response to the February 27, 2006 Office Action entered for the above referenced application. A petition for a two month extension of time is also submitted herewith. Claims 24-34, 37-41, 52 and 54-59 are pending. Claims 38, 40 and 41 were rejected as indefinite under 35 U.S.C. §112, 2nd par. Claims 28 and 59 were rejected as directed to non-statutory subject matter under 35 U.S.C. §101. Claims 24-32, 37, 39, 54, 55, 57, and 58 were rejected as anticipated by U.S. Pat. No. 5,646,997 issued to Barton (Barton). Claims 52, 56, and 59 were rejected as obvious in view of Barton in combination with U.S. Pat. No. 6,363,357 issued to Rosenberg (Rosenberg). Applicants note with appreciation the indication of allowable subject matter with respect to claims 33 and 34. Claims 28 and 59 are hereby cancelled without prejudice. Claims 24-27, 29-34, 37-41, and 54-58 are hereby amended. Reconsideration and reexamination in view of the present amendments and arguments is respectfully requested.

Claims 38, 40 and 41 were rejected as indefinite under 35 U.S.C. §112, 2nd par. The Examiner objected to the phrases “wherein said main information incorporates with additional information” and “wherein said further comprises.” Applicants hereby amend the claims to remove these phrases and respectfully submit that as amended the claims are allowable under §112 2nd par.

Claims 28 and 59 were rejected as directed to non-statutory subject matter under 35 U.S.C. §101. Claims 28 and 59 are hereby cancelled without prejudice.

Claims 24-32, 37, 39, 54, 55, 57, and 58 were rejected as anticipated by U.S. Pat. No. 5,646,997 issued to Barton. Of these, claim 28 is cancelled without prejudice. Applicants respectfully assert that Barton does not anticipate the present claims for the reasons provided below.

The present invention (as described by claims 24 and 29) provides a novel way of changing information. A first (or underlying) information is provided. The first information may be, for example, a music or video file. A second information is also provided. The second information indicates an information change scheme; in other words, it describes a predefined way of changing information. The change scheme may be a complex encryption method, an encryption key, or as

simple as specifying that information is to be changed by incrementing each byte by 1. The second information is placed dispersedly within the first information by modifying some portions of the first information. Other portions of the first information which were not modified when the second information was placed in them are changed. They are changed in accordance with the change scheme indicated by the second information.

Thus, it can be seen that the first information may be viewed as having at least two portions which are treated differently by the present invention. A first portion of the first information is changed by having the second information incorporated in it. A second part, in which the second information is not incorporated, is changed in a different manner – by performing changes in accordance with the change scheme described by the second information.¹

Claim 24 was amended to recite in part “a step of inputting first information” as well as “a step of inputting second information indicative of an information change scheme”, “a step of incorporating said second information dispersedly into said first information” and “a step of changing a portion of said first information, where said second information is not positioned, in accordance with the information change scheme indicated by said second information.”

With regards to independent claims 24, 26, and 27, Barton does not disclose the combination of “incorporating said second information dispersedly into said first information”, that said second information is “indicative of an information change scheme” and “changing a portion of said first information, where said second information is not positioned, in accordance with the information change scheme...” Similarly, with reference to claims 29, 30 and 31, Barton does not disclose “reproducing said second information dispersedly incorporated in said first information,” that “an information change scheme [is] indicated by [the] second information” and “decoding the portion of said first information ... on the basis of said second information...” Furthermore, claims 25, 32, 37, and 39 are not anticipated by Barton because they depend from claims 24 and 29.

¹ Note that the two parts may not be continuous. Also, there may be additional parts of the first information which may be left unchanged or be changed in an entirely different manner.

Barton generally teaches a watermarking process to be used for authentication of bitstreams. According to Barton, additional data is added to a bitstream and that additional data may be later extracted from the bitstream and used to authenticate it. However, Barton does not teach changing the bitstream and also separately incorporating into the bitstream information as to how the bitstream is changed. On the contrary, Barton specifically states that the devices which extract the additional information from the bitstream must have precise knowledge of how that information was initially put into the bitstream. See, e.g., col. 4, lines 26-29: "During authentication, the foregoing steps are reversed, such that authentication can be performed only by one having knowledge of the precise coding procedure." On the other hand, the embodiments described by the above claims provide the device doing the decoding need not necessarily have "an exact knowledge of the precise coding procedure" but it may learn about the "change scheme" used for coding from "second information" which is extracted from the file being decoded itself.

Barton goes on to describe the coding and decoding procedure in detail (columns 6-8). However, in his detailed description Barton never indicates that any description of the coding scheme being used or of any other "change scheme" of the underlying file is actually incorporated in the file being coded.

The Examiner provides two citations that purportedly disclose adding data indicative of an encryption process (see Examiner's action, p 4, first paragraph). The first one is at Barton col. 7, lines 1-5. This actually describes adding a digital signature of the underlying information. Applicants respectfully suggest that the digital signature is used to authenticate the underlying information and has nothing to do with encryption or with any other "information change scheme."

The Examiner further cited col. 7, lines 20-25. This text does disclose that information describing an encryption is added. However, claims 24-27, 29-32, 37, 39 require that part of the *first* information be changed according to the information change scheme. In contrast, the cited text in Barton does not discuss encrypting the underlying (first) information but the information which is to be added. Barton specifically states "[e]ncrypt the embedded bit string ... If desired after encryption, append ... a bit string indicating the encryption technique employed." (col. 7, line 14-23). Thus,

when Barton mentions “the encryption technique employed” it refers to the encryption of the “embedded bit string.” Earlier Barton clearly defines the “embedded bit string” to be the information which is to be added and refers to the original underlying information (i.e. first information) as the “data block” (see col. 6, line 50 through col. 7, line 2). Barton does not at all discuss the encryption of the data block.

Therefore, Barton does not disclose that the first information, i.e. the data block, is changed according to the information change scheme which is indicated by the second information. The information change scheme which Barton adds to the second information is only used to change the second information itself. Accordingly, claims 24-27, 29-32, 37, 39 are patentable in view of Barton.

Claims 54, 55, 57 and 58 are amended to recite in part “a fourth section that creates a new tone pitch parameter ... and then replaces an original tone pitch parameter of the particular event data with the new tone pitch parameter, to thereby not only incorporate said second information dispersedly into said first information but also encrypt said first information” (claim 54) and “a section that inputs encrypted electronic information ... the encrypted electronic information being information obtained by encrypting ... first information comprising a plurality of event data each including two or more parameters, wherein said second information is not only incorporated dispersedly in said first information but also encrypts it” (claim 55).

Barton does not anticipate claims 54, 55, 57, and 58, because Barton does not teach “replacing an original tone pitch parameter ... with the new tone pitch parameter, to thereby not only incorporate said second information dispersedly into said first information but also encrypt said first information...”

Barton teaches watermarking in general and follows the usual goal of watermarking, which is to ensure that the changes of the information being watermarked are relatively minor so that a user of the information would not be aware of the watermark unless he/she specifically searches for it. Thus, in its Abstract Barton states that “[a]rbitrary digital information is embedded within a stream of digital data, in a way that avoids detection by a casual observer.”

In its detailed description Barton discusses how to modify a data stream without making any changes to the data stream which would be perceptible to the casual user. See, e.g. col. 5, lines 4-22. As mentioned above, this is different than claims 54, 55, 57, and 58 which require that adding the second information creates a new tone pitch parameter for encryption.

Barton does mention encryption, but as discussed above it only teaches encrypting the information to be added (i.e., the second information) and not the underlying first information. Also, Barton only discusses "Marking JPEG Images" (col. 8) and "Marking An MPEG Digital Movie" (col. 9). In the MPEG section, Barton makes it clear that it inserts information in the video portion of an MPEG signal (see col. 9, lines 30-40).

Claims 52, 56, and 59 were rejected as obvious in view of Barton in combination with U.S. Pat. No. 6,363,357 issued to Rosenberg (Rosenberg). Applicants respectfully suggest that this rejection be withdrawn as Rosenberg is not prior art under 35 U.S.C. §102/103. Rosenberg was filed in the United States on December 29, 1999. The present application is a divisional of Application Ser. No. 09/111,605 (now U.S. Pat. No. 6,959,383) which was filed in the United States on July 7, 1998. Since the present application is entitled to an earlier effective filing date than Rosenberg, it is not prior art under any clause of 35 U.S.C. §102.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

If, for any reason, the Examiner finds the application other than in condition for allowance, Applicants request that the Examiner contact the undersigned attorney at the Los Angeles telephone number (213) 892-5790 to discuss any steps necessary to place the application in condition for allowance.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing Docket No. 393032003810.

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Respectfully submitted,

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